

Absolute Encoder**ABSTRACT**

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An apparatus having a code strip carrier that is illuminated by an illumination system and a plurality of read heads is disclosed. Each code track includes a plurality of dark and light stripes. Each read head is positioned to detect light from a corresponding one of the code tracks as that code track moves relative to the read head, the read head generating a signal indicative of the intensity of light reaching that read head. One of the code tracks includes a first absolute position track that provides an indication of the absolute position value when the code strip carrier is at each of a plurality of predetermined absolute positions relative to the origin position. A different one of the code tracks includes an incremental position track for generating a digital value indicative of a displacement of the code strip carrier relative to the last predetermined absolute position.

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